BEinCPPS
Business Experiments in Cyber Physical Production Systems

Factories of the Future obj. 9: ICT Innovation for Manufacturing SMEs;
Budget: EUR 8,000,000; Open Calls for SMEs: EUR 2,000,000; Open Calls CCs EUR 250,000
Start Date: November 1\textsuperscript{st} 2015 – End Date: October 31\textsuperscript{st} 2018

A Consortium of 23 partners performing CPPS experimentations in 5 regions (Lombardia, Euskadi, Baden Württemberg, Norte, Rhône Alpes) with Competence Centers, Industries, IT partners, SMEs Technology Transfer bodies)

- **Phase I**: 5 Big Industrial Champions involving their value chain SMEs
- **Phase II**: Open Call for additional platform / application providers (800k€ for IT SMEs)
- **Phase III**: pan-EU Open Call for replications of the champions in other sectors / domains / regions (1200k€ for MANUFACTURING SMEs)
**BEinCPPS**

**Vision and Mission**

**VISION:** The full adoption by EU SMEs of CPPS systems and their related service platforms and innovation business models will allow Europe to achieve the ambitious target by 2020 to have **20%** of the GDP coming from **Manufacturing & Services**.

**MISSION:** **BEinCPPS** project aims to integrate and experiment a FI-based **machine-factory-cloud** service platform firstly intensively in **five** selected S3 Vanguard regions, afterwards extensively in all European regions, by involving local competence centers and manufacturing SMEs. The final aim of this IA is to dramatically improve the adoption of CPPSs all over Europe by means of the creation, nurturing and flourishing of CPS-driven **regional innovation ecosystems**, made of competence centers, manufacturing enterprises and IT SMEs.
BEinCPPS

Smart Specialisation and Champion Experiments

**Smart Specialisation** is a new innovation policy concept to boost regional innovation in order to achieve economic growth and prosperity, by enabling regions to focus on their strengths. The ‘**Vanguard Initiative (VI) for New Growth through Smart Specialisation**’ seeks to better position and embed the smart specialisation agenda within relevant EU policy frameworks. [http://www.s3vanguardinitiative.eu/](http://www.s3vanguardinitiative.eu/)

- **WHIRLPOOL** Washing Machines: Statistical Zero Defect Quality Control system
- **MAIER S.A** Plastic Components: Manufacturing Processes for new automotive components
- **JOHN DEERE** Agriculture Technologies: highly personalized cabin manufacturing, final assembly
- **KYAIA** Footwear Manufacturing: High Speed Shoe Factory automation and control
- **PERNOUD** Moulds Manufacturer: high precision moulding
BEinCPPS

Architecture and Platforms

Three levels architecture: MACHINE FACTORY CLOUD. Hw/Sw artefacts from CPS (Smart Anything Everywhere), ARTEMIS-ECSEL (Crystal), FIWARE-IoT (FITMAN)
FIWARE for Industry Value Proposition

Seven Chapters of Generic Enablers (Data, IoT, GUI, Security, ItoNetwork, Apps Marketplace, Cloud) and five domain specific: FITMAN for Manufacturing
BEinCPPS

The FITMAN IoT for Manufacturing Platform

www.fitman-fi.eu

FIWARE for industry:
• Catalogue of 15 Open Source Components
• Reference Architectures for Smart-Digital-Virtual Factories
• IoT for Manuf. Platform
• 10 Trials Platforms